



# United States Department of the Interior

NATIONAL PARK SERVICE  
DENVER SERVICE CENTER  
12795 W. ALAMEDA PARKWAY  
P.O. BOX 25287  
DENVER, COLORADO 80225-0287

IN REPLY REFER TO:

1621 (DSC-PDS)

GRCA 228-10

*Xcomp.*

Regional Supervisor  
U.S. Fish and Wildlife Service  
Arizona Ecological Services Field Office  
2321 W. Royal Palm Road, Suite 103  
Phoenix, AZ 85021-4951

SEP 01 1999

Dear Regional Supervisor;

Reference: Grand Canyon National Park, Package 228, Realign Desert View Road, Project Type 10

Subject: Request for List of Federal Threatened and Endangered Species

At Desert View at the east entrance of Grand Canyon National Park, Coconino County, Arizona (see attached map), the National Park Service (NPS) is initiating a planning proposal to realign one mile of the Desert View Road, construct a 465 space parking lot with a transit facility, reconstruct 1,500 feet of existing road, remove 1,500 feet of existing road, remove the existing entrance station, construct a new entrance station, and rehabilitate/revegetate areas of visitor overuse. As the natural resource specialist assigned to this project, I am requesting a current list of federally listed threatened or endangered species, species of concern, or any other special status species that might occur in the locality mentioned above, and designated critical habitats, if any, for these species.

In order to meet project schedules, we would appreciate your response by October, 15, 1999.

This letter will serve as a record that the NPS is continuing informal consultation with your agency pursuant to the requirements of the Endangered Species Act and NPS *Management Policies*.

If you have any questions or require further information, I may be reached by telephone at 303/969-2276. Please send your response to me at the letterhead address above.

We appreciate your continuing support with National Park Service projects.

Sincerely

Stephen E. Stone  
Natural Resource Specialist

Attachment : *PARK BROCHURE*

cc:

Supt. , Grand Canyon NP, w/o att.  
GRCA-Balsam, Montague, w/o att.

bcc:

DSC-PM-Mettlach, w/o att.  
DSC-PDS-Pilk, Stone, , w/o att.



**DSC RECORD COPY**  
**United States Department of the Interior**  
**U.S. Fish and Wildlife Service**  
2321 W. Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951  
(602)640-2720 FAX (602)640-2730



In Reply Refer To:

AESO/SE  
2-21-99-I-331

September 17, 1999

GRCA  
228 11 10

X compliance

**Memorandum**

**To:** National Park Service, Denver, Colorado (Attn: Stephen E. Stone, Natural Resource Specialist)

**From:** Field Supervisor

**Subject:** Grand Canyon National Park, Package 228, Realign Desert View Road, Project Type 10

This memo responds to your September 1, 1999, request for an inventory of threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may potentially occur in your project area (Coconino County). The enclosed list may include candidate species as well. We hope the enclosed county list of species will be helpful. In future communications regarding this project, please refer to consultation number 2-21-99-I-331.

The enclosed list of the endangered, threatened, proposed, and candidate species includes all those potentially occurring anywhere in the county, or counties, where your project occurs. Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Also on the enclosed list is the Code of Federal Regulations (CFR) citation for each listed or proposed species. Additional information can be found in the CFR and is available at most public libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency must request formal consultation with the Service. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency must enter into a section 7 conference with the Service. Candidate species are those which are being considered for addition to the list of threatened or endangered species and for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered

in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, the Service recommends the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways or excavation in waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona protects some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species in your project area.

The Service appreciates your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact Tom Gatz (x240).

David L. Harlow

Enclosure

cc: Director, Arizona Game and Fish Department, Phoenix, AZ

09/17/1999

## 1) LISTED

TOTAL= 15

NAME: BRADY PINCUSHION CACTUS

*PEDIOCACTUS BRADYI*

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 44 FR 61784, 10-26-1979

DESCRIPTION: SMALL, SEMI-GLOBOSE CACTUS, 2.4 INCHES TALL AND 2 INCHES IN  
DIAMETER. SPINES ARE WHITE OR YELLOWISH-TAN. THE SPINE  
CLUSTERS 1-2 CENTRAL SPINES & 14-15 SPREADING RADIAL SPINES.  
FLOWER: STRAW YELLOW PRODUCED AT TOP OF THE STEM

ELEVATION

RANGE: 3850-4500 FT.

COUNTIES: COCONINO

HABITAT: BENCHES &amp; TERRACES IN NAVAJO DESERT NEAR MARBLE GORGE.

SUBSTRATE IS KAIBAB LIMESTONE CHIPS OVER MOENKOPI SHALE AND SANDSTONE SOIL. PLANT COMMUNITY  
DOMINATED BY SHADSCALE (*ATRIPLEX CONFERTIFOLIA*), SNAKEWEED (*GUTIERREZIA SAROTHRAE*), MORMON  
TEA (*EPHEDRA VIRIDIS*), AND DESERT TRUMPET (*ERIOGONUM INFLATUM*). PROTECTED BY CITES AND ARIZONA  
NATIVE PLANT LAW.

NAME: NAVAJO SEDGE

*CAREX SPECUICOLA*

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 50 CFR 19373, 5-8-85

DESCRIPTION: PERENNIAL FORB WITH TRIANGULAR STEMS, ELONGATED RHIZOMES.  
FLOWER: WHITE JUNE AND JULY

ELEVATION

RANGE: 5700-6000 FT.

COUNTIES: COCONINO, NAVAJO, APACHE

HABITAT: SILTY SOILS AT SHADY SEEPS AND SPRINGS

DESIGNATED CRITICAL HABITAT IS ON THE NAVAJO NATION NEAR INSCRIPTION HOUSE RUINS. FOUND AT SEEP  
SPRINGS ON VERTICAL CLIFFS OF PINK-RED NAVAJO SANDSTONE.

NAME: SAN FRANCISCO PEAKS GROUNDSEL

*SENECIO FRANCISCANUS*

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 48 FR 52743, 11-22-1983

DESCRIPTION: MEMBER OF SUNFLOWER FAMILY, DWARF ALPINE SPECIES 1.2-4  
INCHES TALL. LEAVES DEEPLY LOBED. FLOWERS: 0.5 INCH DIAMETER 1-  
6 YELLOW-GOLD FLOWERS.

ELEVATION

RANGE: 10900+ FT.

COUNTIES: COCONINO

HABITAT: ALPINE TUNDRA

DESIGNATED CRITICAL HABITAT IS SAN FRANCISCO PEAKS. FOUND ABOVE SPRUCE-FIR AND PINE FORESTS ON  
TALUS SLOPES.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCONINO

09/17/1999

NAME: SENTRY MILK-VETCH

*ASTRAGALUS CREMNOPHYLAX VAR CREMNOPHYLA*

STATUS: ENDANGERED

CRITICAL HAB No

RECOVERY PLAN: No

CFR: 55 FR 50184, 12-5-1990

DESCRIPTION: < 1 INCH HIGH FORMING A MAT 1-10 INCHES IN DIAMETER. FLOWERS:  
PALE PURPLE APRIL TO MAY

ELEVATION

RANGE: >4000 FT.

COUNTIES: COCONINO

HABITAT: PINYON-JUNIPER-CLIFFROSE ON A WHITE LAYER OF LIMESTONE

GROWS ON KAIBAB LIMESTONE WITH LITTLE SOIL IN AN UNSHADED OPENING IN PINYON-JUNIPER. POSSIBLY MORE POPULATIONS TO BE FOUND ON SOUTH RIM OF GRAND CANYON AND EAST RIM OF MARBLE GORGE.

NAME: SILER PINCUSHION CACTUS

*PEDIOCACTUS SILERI*

STATUS: THREATENED

CRITICAL HAB No

RECOVERY PLAN: Yes

CFR: 44 FR 61786, 11-26-1979

DESCRIPTION: SMALL SOLITARY OR CLUSTERED CACTUS GLOBOSE SHAPED ABOUT 5  
INCHES TALL AND 3-4 INCHES IN DIAMETER. FLOWERS: YELLOW WITH  
MAROON VEINS

ELEVATION

RANGE: 2800-5400 FT.

COUNTIES: MOHAVE COCONINO

HABITAT: DESERTSCRUB TRANSITIONAL AREAS OF NAVAJOAN, SAGEBRUSH AND MOHAVE DESERTS

GROWS ON GYPSIFEROUS CLAY AND SANDY SOILS OF MOENKOPI FORMATION.

NAME: WELSHS MILKWEED

*ASCLEPIAS WELSHII*

STATUS: THREATENED

CRITICAL HAB Yes

RECOVERY PLAN: Yes

CFR: 52 FR 41435, 10-28-1987

DESCRIPTION: MILKWEED FAMILY (ASCLEPIADACEAE), RHIZOMATOUS, HERBACEOUS  
PERENNIAL, 10-40 INCHES TALL WITH LARGE OVAL LEAVES. FLOWERS:  
CREAM COLORED, ROSE TINGED IN CENTER.

ELEVATION

RANGE: VARIES FT.

COUNTIES: COCONINO

HABITAT: OPEN STABILIZED DESERTSCRUB DUNES AND LEE SIDE OF ACTIVE DUNES

DESIGNATED CRITICAL HABITAT IS IN UTAH.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCONINO

09/17/1999

NAME: KANAB AMBERSNAIL

*OXYLOMA HAYDENI KANABENSIS*

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 57 FR 13657, 04-17-1992

DESCRIPTION: SMALL 14-19 MM (<0.7 INCH), LIGHT AMBER COLOR, SOMETIMES  
GRAYISH-AMBER MOTTLED; RIGHT HANDED SHELL

ELEVATION

RANGE: 2,900 FT.

COUNTIES: COCONINO

HABITAT: TRAVERTINE SEEPS AND SPRINGS IN GRAND CANYON NATIONAL PARK

EXTREMELY GEOGRAPHICALLY ISOLATED. THREE HISTORIC POPULATIONS; TWO REMAINING; ONE ON PRIVATE PROPERTY IN UTAH AND ONE IN GRAND CANYON NATIONAL PARK; SPECIES AFFECTED BY OPERATIONS BY GLEN CANYON DAM. ASSOCIATED WITH WATERCRESS, MONKEY FLOWER, AND OTHER WETLAND VEGETATION.

NAME: BLACK-FOOTED FERRET

*MUSTELA NIGRIPES*

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67

DESCRIPTION: WEASEL-LIKE, YELLOW BUFF COLORATION WITH BLACK FEET, TAIL TIP,  
AND EYE MASK. IT HAS A BLUNT LIGHT COLORED NOSE AND IS 15-18  
INCHES LONG AND TAIL LENGTH IS 5-6 INCHES.

ELEVATION

RANGE: <10,500 FT.

COUNTIES: COCONINO, APACHE, NAVAJO

HABITAT: GRASSLAND PLAINS GENERALLY FOUND IN ASSOCIATION WITH PRAIRIE DOGS

UNSURVEYED PRARIE DOG TOWNS MAY BE OCCUPIED BY FERRETS OR MAY BE APPROPRIATE FOR FUTURE REINTRODUCTION EFFORTS. THE SERVICE DEVELOPED GUIDELINES FOR SURVEYING PRAIRIE DOG TOWNS WHICH ARE AVAILABLE UPON REQUEST. NO POPULATIONS OF THIS SPECIES CURRENTLY KNOWN TO EXIST IN ARIZONA.

NAME: HUMPBAC CHUB

*GILA CYPHA*

STATUS: ENDANGERED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967;59

DESCRIPTION: LARGE (18 INCH) MINNOW FLATTENED HEAD LONG FLESHY SNOUT,  
LARGE FINS, AND A VERY LARGE HUMP BETWEEN THE HEAD AND THE  
DORSAL FIN

ELEVATION

RANGE: <4000 FT.

COUNTIES: COCONINO, MOHAVE

HABITAT: LARGE WARM TURBID RIVERS ESPECIALLY CANYON AREAS WITH DEEP FAST WATER

CRITICAL HABITAT IN GRAND CANYON

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCONINO

09/17/1999

NAME: LITTLE COLORADO SPINEDACE

*LEPIDOMEDA VITTATA*

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 52 FR 35054

DESCRIPTION: SMALL (<4 INCHES LONG) SILVERY MINNOW WHICH IS DARKER ON THE BACK THAN THE BELLY

ELEVATION

RANGE: 4000-8000 FT.

COUNTIES: COCONINO, APACHE, NAVAJO

HABITAT: MODERATE TO SMALL STREAMS IN POOLS AND RIFFLES WITH WATER FLOWING OVER GRAVEL AND SILT

CRITICAL HABITAT INCLUDES EIGHTEEN MILES OF EAST CLEAR CREEK, EIGHT MILES OF CHEVELON CREEK, AND FIVE MILES OF NUTRIOS CREEK

NAME: RAZORBACK SUCKER

*XYRAUCHEN TEXANUS*

STATUS: ENDANGERED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 55 FR 21154, 05-22-1990;

DESCRIPTION: LARGE (UP TO 3 FEET AND UP TO 16 POUNDS) LONG, HIGH SHARP-EDGED KEEL-LIKE HUMP BEHIND THE HEAD. HEAD FLATTENED ON TOP. OLIVE-BROWN ABOVE TO YELLOWISH BELOW.

ELEVATION

RANGE: <6000 FT.

COUNTIES: GREENLEE, MOHAVE, PINAL, YAVAPAI, YUMA, LA PAZ, MARICOPA (REFUGIA), GILA, COCONINO, GRAHAM

HABITAT: RIVERINE & LACUSTRINE AREAS, GENERALLY NOT IN FAST MOVING WATER AND MAY USE BACKWATERS

SPECIES IS ALSO FOUND IN HORSESHOE RESERVOIR (MARICOPA COUNTY). CRITICAL HABITAT INCLUDES THE 100-YEAR FLOODPLAIN OF THE RIVER THROUGH GRAND CANYON FROM CONFLUENCE WITH PARIA RIVER TO HOOVER DAM; HOOVER DAM TO DAVIS DAM; PARKER DAM TO IMPERIAL DAM. ALSO GILA RIVER FROM AZ/NM BORDER TO COOLIDGE DAM; AND SALT RIVER FROM HWY 60/SR 77 BRIDGE TO ROOSEVELT DAM; VERDE RIVER FROM FS BOUNDARY TO HORSESHOE LAKE.

NAME: BALD EAGLE

*HALIAEETUS LEUCOCEPHALUS*

STATUS: THREATENED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 60 FR 35999, 07-12-95

DESCRIPTION: LARGE, ADULTS HAVE WHITE HEAD AND TAIL. HEIGHT 28 - 38"; WINGSPAN 66 - 96". 1-4 YRS DARK WITH VARYING DEGREES OF MOTTLED BROWN PLUMAGE. FEET BARE OF FEATHERS.

ELEVATION

RANGE: VARIES FT.

COUNTIES: YUMA, LA PAZ, MOHAVE, YAVAPAI, MARICOPA, PINAL, COCONINO, NAVAJO, APACHE, SANTA CRUZ, PIMA, GILA, GRAHAM, COCHISE

HABITAT: LARGE TREES OR CLIFFS NEAR WATER (RESERVOIRS, RIVERS AND STREAMS) WITH ABUNDANT PREY

SOME BIRDS ARE NESTING RESIDENTS WHILE A LARGER NUMBER WINTERS ALONG RIVERS AND RESERVOIRS. AN ESTIMATED 200 TO 300 BIRDS WINTER IN ARIZONA. ONCE ENDANGERED (32 FR 4001, 03-11-1967; 43 FR 6233, 02-14-78) BECAUSE OF REPRODUCTIVE FAILURES FROM PESTICIDE POISONING AND LOSS OF HABITAT, THIS SPECIES WAS DOWN LISTED TO THREATENED ON AUGUST 11, 1995. ILLEGAL SHOOTING, DISTURBANCE, LOSS OF HABITAT CONTINUES TO BE A PROBLEM. SPECIES HAS BEEN PROPOSED FOR DELISTING (64 FR 36454) BUT STILL RECEIVES FULL PROTECTION UNDER ESA.



LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCONINO

09/17/1999

NAME: CALIFORNIA CONDOR

*GYMNOPS CALIFORNIANUS*

STATUS: EXPERIMENTAL/NONESSENTIAL CRITICAL HAB No RECOVERY PLAN: Yes CFR: 32 FR 4001; 03-11-67

DESCRIPTION: VERY LARGE VULTURE (47 IN., WINGSPAN TO 9 1/2 FT, WEIGHT TO 22 LBS); ADULT PLUMAGE BLACKISH, IMMATURE MORE BROWNISH; ADULT WING LININGS WHITE, IMMATURE MOTTLED; HEAD & UPPER PARTS OF NECK BARE; YELLOW-ORANGE IN ADULTS, GRAYISH IN IMMATURE. ELEVATION RANGE: VARIES FT.

COUNTIES: MOHAVE, COCONINO, NAVAJO, APACHE

HABITAT: HIGH DESERT CANYONLANDS AND PLATEAUS

LAST WILD CONDOR REPORTED IN ARIZONA IN 1924. RECOVERY PROGRAM HAS REINTRODUCED CONDORS TO NORTHERN ARIZONA, WITH THE FIRST RELEASE (6 BIRDS) IN DECEMBER 1996. RELEASE SITE LOCATED AT THE VERMILLION CLIFFS (COCONINO CO.), WITH AN EXPERIMENTAL/NONESSENTIAL AREA DESIGNATED FOR MOST OF NORTHERN ARIZONA AND SOUTHERN UTAH.

NAME: MEXICAN SPOTTED OWL

*STRIX OCCIDENTALIS LUCIDA*

STATUS: THREATENED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 56 FR 14678, 04-11-91

DESCRIPTION: MEDIUM SIZED WITH DARK EYES AND NO EAR TUFTS. BROWNISH AND HEAVILY SPOTTED WITH WHITE OR BEIGE. ELEVATION RANGE: 4100-9000 FT.

COUNTIES: MOHAVE, COCONINO, NAVAJO, APACHE, YAVAPAI, GRAHAM, GREENLEE, COCHISE, SANTA CRUZ, PIMA, PINAL, GILA, MARICOPA

HABITAT: NESTS IN CANYONS AND DENSE FORESTS WITH MULTI-LAYERED FOLIAGE STRUCTURE

GENERALLY NESTS IN OLDER FORESTS OF MIXED CONIFER OR PONDEROSA PINE/GAMBEL OAK TYPE, IN CANYONS, AND USE VARIETY OF HABITATS FOR FORAGING. SITES WITH COOL MICROCLIMATES APPEAR TO BE OF IMPORTANCE OR ARE PREFERRED.

NAME: SOUTHWESTERN WILLOW FLYCATCHER

*EMPIDONAX TRAILLII EXTIMUS*

STATUS: ENDANGERED CRITICAL HAB Yes RECOVERY PLAN: No CFR: 60 FR 10694, 02-27-95

DESCRIPTION: SMALL PASSERINE (ABOUT 6") GRAYISH-GREEN BACK AND WINGS, WHITISH THROAT, LIGHT OLIVE-GRAY BREAST AND PALE YELLOWISH BELLY. TWO WINGBARS VISIBLE. EYE-RING FAINT OR ABSENT. ELEVATION RANGE: <8500 FT.

COUNTIES: YAVAPAI, GILA, MARICOPA, MOHAVE, COCONINO, NAVAJO, APACHE, PINAL, LA PAZ, GREENLEE, GRAHAM, YUMA, PIMA, COCHISE, SANTA CRUZ

HABITAT: COTTONWOOD/WILLOW & TAMARISK VEGETATION COMMUNITIES ALONG RIVERS & STREAMS

MIGRATORY RIPARIAN OBLIGATE SPECIES THAT OCCUPIES BREEDING HABITAT FROM LATE APRIL TO SEPTEMBER. DISTRIBUTION WITHIN ITS RANGE IS RESTRICTED TO RIPARIAN CORRIDORS. DIFFICULT TO DISTINGUISH FROM OTHER MEMBERS OF THE EMPIDONAX COMPLEX BY SIGHT ALONE. TRAINING SEMINAR REQUIRED FOR THOSE CONDUCTING FLYCATCHER SURVEYS. CRITICAL HABITAT ON PORTIONS OF THE 100-YEAR FLOODPLAIN ON SAN PEDRO AND VERDE RIVERS; WET BEAVER AND WEST CLEAR CREEKS, INCLUDING TAVASCI MARSH AND ISTER FLAT; THE COLORADO RIVER, THE LITTLE COLORADO RIVER, AND THE WEST, EAST, AND SOUTH FORKS OF THE LITTLE COLORADO RIVER, REFERENCE 60 CFR:62 FR 39129, 7/22/97.



09/17/1999

## 3) CANDIDATE

TOTAL= 3

NAME: ARIZONA BUGBANE

*CIMICIFUGA ARIZONICA*

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: PERENNIAL HERB IN THE BUTTERCUP FAMILY UP TO 6-7 FEET TALL.  
 SMALL WHITE PETAL-LESS FLOWERS APPEAR IN JULY-AUGUST. FRUIT  
 A FOLLICLE THAT SPLITS OPEN ON ONE SIDE AS IT DRIES.

ELEVATION

RANGE: 5300-7000 FT.

COUNTIES: COCONINO, GILA

HABITAT: MOIST. LOAMY SOIL BETWEEN CONIFEROUS AND RIPARIAN ECOTONES.

RICH, FERTILE SOILS HIGH IN HUMUS CONTENT, DEEP SHADE, AND HIGH HUMIDITY APPEARS TO BE PRIMARY  
 HABITAT REQUIREMENTS FOR THIS SPECIES.

NAME: FICKEISEN PINCUSHION CACTUS

*PEDIOCACTUS PEEBLESIANUS FICKEISENIAE*

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: VERY SMALL (3 INCHES TALL- 1.5 INCHES DIAMETER) UNBRANCHED  
 CACTUS THAT RETREATS INTO GRAVELY SOILS AFTER FLOWERING  
 AND FRUITING. TUBERCLES FORM A SPIRAL PATTERN AROUND PLANT.  
 CENTRAL SPINE 3/8 INCH LONG FLOWERS CREAM/YELLOW

ELEVATION

RANGE: 4000-5000 FT.

COUNTIES: COCONINO, MOHAVE

HABITAT: EXPOSED LAYERS OF KAIBAB LIMESTONE ON CANYON MARGINS OR HILLS OF NAVAJOAN DESERT

NAME: CHIRICAHUA LEOPARD FROG

*RANA CHIRICAHUENSIS*

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: CREAM COLORED TUBERCLES (spots) ON A DARK BACKGROUND ON  
 THE REAR OF THE THIGH, DORSOLATERAL FOLDS THAT ARE  
 INTERRUPTED AND DEFLECTED MEDIALY, AND A CALL GIVEN OUT OF  
 WATER DISTINGUISH THIS SPOTTED FROG FROM OTHER LEOPRD

ELEVATION

RANGE: 3000-8300 FT.

COUNTIES: SANTA CRUZ, APACHE, GILA, PIMA, COCHISE, GREENLEE, GRAHAM, YAVAPAI, COCONINO, NAVAJO

HABITAT: STREAMS, RIVERS, BACKWATERS, PONDS, AND STOCK TANKS THAT ARE FREE FROM INTRODUCED FISH  
 AND BULLFROGS

REQUIRE PERMANENT OR NEARLY PERMANENT WATER SOURCES. POPULATIONS NORTH OF THE GILA RIVER ARE  
 THOUGHT TO BE CLOSELY-RELATED, BUT DISTINCT, UNDESCRIBED SPECIES. SPECIES ALSO FOUND ON FORT  
 HUACHUCA

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCONINO

09/17/1999

## CONSERVATION AGREEMENT

TOTAL= 1

NAME: KAIBAB PLAINS CACTUS

*PEDIOCACTUS PARADINEI*

STATUS: NONE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: SMALL, GREEN, GLOBOSE CACTUS; USUALLY LESS THAN 40 MM TALL  
WITH HALF OF ITS STEM UNDERGROUND. PLANT DIAMETERS CAN  
REACH 60-80 MM. 4-6 SPINES PER AEREOLE; FLOWERS ARE 19-25 MM  
WITH CREAM TO PALE YELLOW PETALS AND PINK MIDRIB.

ELEVATION

RANGE: >4,500 FT FT.

COUNTIES: COCONINO

HABITAT: PINYON-JUNIPER WOODLAND, AND SHRUB/GRASSLAND

SPECIES ALSO CALLED PARADINE PLAINS CACTUS. CONSERVATION AGREEMENT BETWEEN THE SERVICE, KAIBAB NATIONAL FOREST, AND BUREAU OF LAND MANAGEMENT FINALIZED IN OCTOBER 1996